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Ref D

SAFC-25692

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**MEMORANDUM FOR: Project Director**

**ATTENTION :**

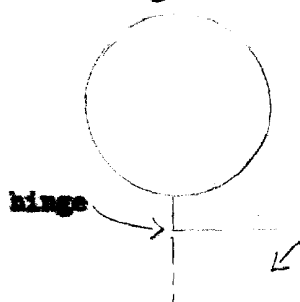
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**SUBJECT : Scimitar Antennas for System IV**

1. The scimitar for the belly mount (to replace the ineffective "whale" now being used there) has been tested and shows itself to be the antenna we had hoped it would be.

2. It will be necessary, in order to carry this scimitar, to construct it either with a flipper that falls down upon activation of System VI by the pilot or with some other mechanical arrangement that allows it to be lifted aside when the plane is on the ground.  has suggested that it be hinged something as shown in the accompanying sketch.

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The merit of his plan is that the construction would seem easier and the electrical connections can be positive at all times. In either case, the moveable portion of the antenna should be a throw-away device that would break-up or fall off when it hit the ground.

3. Such a device can be reasonably priced since the electrical properties needed can be obtained with aluminum foil, metal spray or similar methods onto a di-electric form or similar type backing and this can become the entire throw-away section.

4. It is recommended that the prime contractor be asked to produce five antennas for System VI using the dimensions worked by . This recommendation should proceed without delay since the existing "whale" antenna is very poor for horizontally polarized radiation (all radars and 50% of the other signals in this band are horizontally polarized).

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Acting **ELINT** Staff Officer